

**AN INQUIRY INTO THE PROBLEMS OF APPLE PRODUCTION AND
MARKETING IN THE PERSPECTIVE OF APPLE GROWERS IN SHIMLA
DISTRICT OF HIMACHAL PRADESH**

K. KIREETI¹ & L. R. SHARMA²

¹Department of Agriculture Economics, College of Agriculture, Prof. Jayashankar Telangana State Agricultural University,
Hyderabad, Telangana State, India

²Department of Social Sciences, COF, Dr. Y. S. P. U. H. F. Nauni, Solan, Himachal Pradesh, India

ABSTRACT

Apple is one of the most broadly cultivated fruit trees in the world. It is of great importance due to its good food value. The main Goal of this research was to identify and analyse the production and marketing allied problems of apple growers in Shimla district of Himachal Pradesh. The study sample of the apple growers by randomized technique was 70 people. The results indicated that apple growers have serious problems in the production stage related to labour, cost and availability of fertilizers & chemicals. Also there are limitations in marketing related to lack of specialized labour, packaging material, mal practices, storage problems, transportation and market intelligence. Apple growers' awareness about apple production and marketing was in average level. Therefore, agricultural educators and the concerned organizations in the society must pay attention to these problems and have a particular agenda to solve the same in due course of time.

KEYWORDS: Apple, Production, Marketing, Problems of Apple Growers, Shimla District & Himachal Pradesh

Received: May 15, 2017; **Accepted:** Jun 10, 2017; **Published:** Jun 23, 2017; **Paper Id.:** IJASRAUG20172

INTRODUCTION

Apple is the most vital temperate fruit crop of the northwestern Himalayan region in India. It particular, it accounts for 48.83 per cent of total area under fruit crops and 83.14 per cent of the total fruit production of Himachal Pradesh (Horticulture development in Himachal Pradesh at a glance, 2015). India is the world's fifth biggest producer of apples, with almost all of its apples produced in just from the three hilly states of Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Where as imported apples, catch consumers' attention as their color is deep red and the packaging is attractive. It is an instant pull. The Indian apple's peak season is between August and December. During the off season, apples are imported. While the profit margins vary from 10-15%, losses can be unlimited (Neha Dewan 2017). Like most other things, our apple economy too depends on demand and supply. At present, the demand for apple is more, but supply of local apple is less. The marketing of Apple is a complex phenomenon. The marketing pattern of apple is different from other agricultural commodities.

Problems of apple growers in Himachal Pradesh are coupled up with the deplorable condition of roads. There was a virtual breakdown of the administration in the apple belt of Shimla and marketing of produce had become a nightmare for the growers who had to put up with unending traffic jams, shortage of trucks, exorbitantly high freight charges and potholed roads. The growers were being made to pay two times than normal fixed by the

government. The apple-harvesting season coincides with the monsoon and growers have been putting up with landslides, market crash and other problems every season.

Hence, there is a felt need to inquire into the problems of apple growers with respect to the apple production and marketing related problems in the study area.

MATERIALS & METHODOLOGY

Sampling Frame

To obtain data for the research survey, a sample is usually required. The reason being, the population may be so large as to make it difficult to get to every individual. Therefore population should be sampled keeping the confinements due to time and money. The multistage random sampling technique was applied for the selection of apple farming households in the selected block. The entire sampling plan consisted of several steps. At the first stage one apple producing district from state of Himachal Pradesh was chosen purposefully. At the second stage one block from the selected district was chosen randomly. In the third stage the block was divided into five altitudinal zones and were designated as E₁, E₂, E₃, E₄ and E₅ for $\leq 1500\text{m}$, 1500-2000m, 2000-2500m, 2500- 3000m, $\geq 3000\text{m}$ above mean sea level respectively. Selection of villages constitutes the fourth stage in the sampling frame. In the fourth stage, a list of villages falling under each altitudinal zone was prepared along with the area under apple and other crops. Thereafter 2 villages were selected randomly from each altitudinal zone. Thus, in all 10 villages viz., Kirti, Namjha, Mangsu, Shamathla, Thanadar, Pamalai, Jarol, Tikkar, Saroga and Shilajan were ultimately selected for the present investigation.

A complete enumeration of all the 10 villages was done and the list of the households was prepared with the help of patwari of the village. From the list of commercial apple growers so prepared, 7 households from each village were selected based on the equal allocation sampling method. Thus a sample of 70 apple growers from the block was drawn at random. Simple percentages were considered as the response against the identified problems in the study area.

RESULTS AND DISCUSSIONS

Problems Faced by Apple Growers

The information regarding problem faced by the producer in production, marketing of apple was also collected from the selected respondents.

With the increase in the production of apples in the district, many problems in the field of production and marketing are arising. In this section, an effort has been made to scrutinize the problems faced by the orchardists in the environs of production and marketing. The production problem faced by the sampled orchardists in the study area was also recorded during the survey and the same is presented in Table 1 for the sample farms of the study area.

Production Problems

- **Shortage of Labor**

Shortage of both unskilled and skilled labor for conducting various intercultural operations, application of farmyard manure and fertilizers, training and pruning of trees and plant protection measures were reported by 65.71 percent of orchardists in the study area at an overall level. More than 58.57 per cent of orchardists surveyed in Narkanda block reported higher wage rate as one of the hindrances in the proper management of orchards on scientific lines. Non-availability at peak periods and lack of technical know-how were also intimated by more than 82.86 percent

surveyed orchardists of the study region.

- **Chemical Fertilizers**

The sample orchardists also forwarded their opinions regarding the problems pertaining to cost and availability of chemical fertilizers. A cursory glance at Table 1 reveals that non-availability of desired brand; untimely availability and high costs were intimated as the main problems by 48.57, 52.86 and 34.29 percent of average sampled growers in the study region.

Table 1: Problems Faced by the Farmers in Production of Apple

		(Multiple Response in Percentage)					
	Particulars	Elevations					
	Labor problems	E 1	E 2	E 3	E 4	E 5	Pooled
i	Shortage of Labor	10 (71.43)	9 (64.29)	9 (64.29)	10 (71.43)	8 (57.14)	46 (65.71)
ii	Higher wages	12 (85.71)	7 (50.00)	9 (64.29)	7 (50.00)	6 (42.86)	41 (58.57)
iii	Non Availability	12 (85.71)	13 (92.86)	10 (71.43)	10 (71.43)	13 (92.86)	58 (82.86)
Chemical Fertilizers							
i	High cost	10 (71.43)	6 (42.86)	5 (35.71)	5 (35.71)	8 (57.14)	34 (48.57)
ii	Desired brand not available	7 (50.00)	7 (50.00)	9 (64.29)	6 (42.86)	8 (57.14)	37 (52.86)
iii	Fertilizers not available in time	6 (42.86)	4 (28.57)	5 (35.71)	5 (35.71)	4 (28.57)	34 (34.29)
Plant Protection Chemicals							
i	High prices of chemicals	11 (78.57)	10 (71.43)	10 (57.14)	10 (71.43)	11 (78.57)	50 (71.43)
ii	Chemicals not available in time	12 (85.71)	10 (71.43)	12 (85.71)	10 (71.43)	10 (71.43)	54 (77.14)
iii	Sale of spurious chemicals.	12 (85.71)	12 (85.71)	13 (92.86)	10 (71.43)	11 (78.57)	58 (82.86)
Other Problems							
i	Non availability of healthy plant material	10 (71.43)	9 (64.29)	7 (50.00)	7 (50.00)	9 (64.29)	42 (60.00)
ii	Limited availability of FYM	13 (92.86)	11 (78.57)	10 (71.43)	12 (85.71)	10 (71.43)	56 (80.00)
iii	Irrigation facility not available	14 (100.00)	13 (92.86)	11 (78.57)	12 (85.71)	14 (100.00)	64 (91.43)

- **Plant Protection Chemicals**

Plant protection chemicals constitute an important critical input in apple production. High prices of chemicals, non-availability in time, and availability of spurious chemicals were the main problems faced by sample orchardists in the study area. At an overall level, high prices, non-availability and availability of spurious brand were reported by 71.43, 77.14 and 82.86 per cent respondents respectively in the study area.

- **Plant Material, Farm Yard Manure and Irrigation Problems**

Healthy plant material is the key to quality production of apple. Non-availability of healthy and genetically improved spur varieties of apple plants was reported by 60 percent growers in the study sample. Similarly, use of FYM is vital for health and production of fruit plants. The actual need of FYM is rarely met in the study region. Nearly 80 per cent sample orchardists in the study area reported about the limited availability of this crucial factor. Absence of irrigation facility was the problem reported by 91.43 per cent of the farmers at an overall level.

MARKETING PROBLEMS

Marketing of apple is as critical as the production. Lack of markets and improved marketing practices contribute to the intricate nature of the marketing of apple in the hills. In the absence of any planned marketing program for apple, producers often remain deprived of remunerative prices for their produce. The various marketing problems and constraints faced by the apple growers need to be tackled in order to boost up the growth of the area under apple crop. The returns from apple depend on several factors like quality of fruit, which otherwise depend upon time of picking. Care is taken in grading and packaging, time taken in transportation, mode of transport used, time and type of storage, quantity and quality of packing material, etc., keeping all these facts in view, opinion of apple, growers with the problems of marketing were sought, and the responses in the study area accordingly. The Table in support of the above details is given in the Table 2.

- **Shortage of Grading and Packaging, Labor**

Shortage of skilled labor during grading and packing were reported by 65.71 percent of orchardists in the study area at an overall level. More than 58.57 per cent of orchardists surveyed in Narkanda block reported higher wage rate as one of the hindrances in the post harvest management. Non-availability of labor in required amount was reported to be a serious problem as intimated by more than 82.86 percent surveyed orchardists of the study region.

- **Packing Material**

Apple is fragile in nature and so needs good packaging, which may ensure least damage to fruits during transportation. The indecent quality of fruits may result in non-remunerative prices. 27.14 per cent orchardists in study area reported shortage of other packing material. At an overall level, nearly 38.57 per cent growers complained high prices of packing material as a problem.

- **Storage Problems**

Apple produces being perishable, require immediate disposal. Due to lack of coolant chain system, huge losses are borne by the participants of the marketing process. Farmers in both regions do not have enough scientific storage facilities for Apple. Storage is normally carried out in some improvised or ill-ventilated homes sheds at home.

The inappropriate storage facility normally, increases the quantitative and qualitative losses. Marketing seasons of Himachal Pradesh apples, extend from July to end of October. During peak harvest time, producers are strained to route to distress sales.

No storage and inadequate storage facilities were more severe problems in the sampled area of study area. Nearly 55.71 per cent sample grower in study area reported about non-availability of storage facility. Inadequate storage was reported as the main problem by 12.86 per cent orchardists in Shimla district.

- **Transportation Problems**

Transportation is one of the important marketing functions required in apple marketing because consumers are situated at longer distances from producing areas. Transportation involves bringing produce from orchards to the road head and then road headers to consumers. Often family and hired labor are used for carrying the product from orchards to assembling points. After doing packing at the assembling point, the produce is carried to road-head either on human backs or on the mules. From the road-head, after doing appropriate marketing motorized transport is hired for taking the produce to local or terminal markets. An analysis of grower problems revealed that the major concern is high transport cost. Further concern is about the lack of all weather and metallic road. A few of them felt the need of improved link roads in the producing areas. Nearly 45.71 per cent of farmers reported that their villages are not linked with proper metal led link roads. In hilly terrain during rainy season landslides and road blockage, take place. Marketing reason of apple is harmonized with monsoon rains. In the study area, nearly 78.57 per cent farms reported that, their villages are not linked by all-weather roads. 42.86 per cent farms of the study area voiced a high transport charge. During the peak season of horticultural operations, there is a tendency to ask for higher wages performing the marketing operations.

- **Market Intelligence**

Market intelligence plays a momentous role in the marketing of perishables. The Less majority of the growers shows up that, they remain unaware of exact information in respect of prices and supply available in different markets. The information regarding the market demand, arrival and prices prevailing in the market are very important as the same can affect the income of the growers. Market intelligence problems here relate to the latest information, limited information, misleading information or information available in limited markets.

31.43 percent of the farms revealed that they were getting inadequate information to plan their marketing strategy. Nearly 35.71 per cent respondents in farms informed that they were getting misleading information. The growers reported that market intelligence supplied by the government was generally for few markets. Thus, they were not in a position to plan their marketing in an efficient way. Nearly 24.29 per cent farms reported that information about prices was received late.

- **Mal - Practices**

The regulation of markets was done with a view to watch the welfare of the sellers and buyers by restraining the malpractices existing in the markets. The apple growers had a general criticism that, the intermediaries were charging assorted marketing charges from the sale proceeds, while these charges are expected to be paid by them as per the market regulations. Nearly 81.43 percent of the farms complained that the intermediaries were deducting more than the genuine charges. The partial payment was reported as a problem by 22.86 per cent at an overall level. At

an overall level, 82.86 per cent orchardists from both the study regions reported that, commission agents/ wholesalers in the market quote lower than actual prices. 65.71 per cent of the farmers felt that, their consent was not taken in fixing the prices.

Table 2: Problems Faced by the Farmers in Marketing of Apple

Particulars	(Multiple Response in Percentage)					
	Elevations					
1. Grading and packing labor	E ₁	E ₂	E ₃	E ₄	E ₅	Pooled
a) Shortage of Skilled Labor	10.00 (71.43)	9.00(64.29)	9.00(64.29)	10.00(71.43)	8.00(57.14)	46.00(65.71)
b) Higher wages	12.00 (85.71)	7.00(50.00)	9.00(64.29)	7.00(50.00)	6.00(42.86)	41.00(58.57)
c) Non Availability	12.00 (85.71)	13.00(92.86)	10.00(71.43)	10.00(71.43)	13.00(92.86)	58.00(82.86)
2. Packing Material						
b) Shortage of other packing material	7.00 (50.00)	3.00(21.43)	4.00(28.57)	2.00(14.29)	3.00(21.43)	19.00(27.14)
c) High Prices	6.00 (42.86)	4.00(28.57)	5.00(35.71)	5.00(35.71)	7.00(50.00)	27.00(38.57)
3. Storage facility						
a) No storage facility	10.00 (71.43)	8.00(57.14)	6.00(42.86)	9.00(64.29)	6.00(42.86)	39.00(55.71)
b) Inadequate storage facility	2.00 (14.29)	1.00(7.14)	3.00(21.43)	2.00(14.29)	1.00(7.14)	9.00(12.86)
4. Transportation						
b) Vehicles not available in time	2.00 (14.29)	1.00(7.14)	1.00(7.14)	1.00(7.14)	3.00(21.43)	8.00(11.43)
c) Villages are not linked with metal road	8.00 (57.14)	6.00(42.86)	5.00(35.71)	5.00(35.71)	8.00(57.14)	32.00(45.71)
d) High transportation charges	6.00 (42.86)	5.00(35.71)	7.00(50.00)	6.00(42.86)	6.00(42.86)	30.00(42.86)
e) Lack of all weather roads	12.00 (85.71)	10.00(71.43)	9.00(64.29)	11.00(78.57)	13.00(92.86)	55.00(78.57)
5. Market Intelligence						
a) Late information	2.00 (14.29)	3.00(21.43)	1.00(7.14)	1.00(7.14)	3.00(21.43)	10.00(14.29)
b) Information available for local market only	3.00 (21.43)	2.00(14.29)	4.00(28.57)	2.00(14.29)	3.00(21.43)	14.00(20.00)
c) Inadequate information	5.00 (35.71)	8.00(57.14)	3.00(21.43)	2.00(14.29)	4.00(28.57)	22.00(31.43)
d) Misleading information	7.00 (50.00)	3.00(21.43)	4.00(28.57)	6.00(42.86)	5.00(35.71)	25.00(35.71)
6. Malpractices in market						
a) Deduct more charges	12.00 (85.71)	10.00(71.43)	11.00(78.57)	11.00(78.57)	13.00(92.86)	57.00(81.43)
b) Part payment	5.00 (35.71)	3.00(21.43)	2.00(14.29)	2.00(14.29)	4.00(28.57)	16.00(22.86)
e) Do not take the consent of the farmer For fixing the price	11.00 (78.57)	10.00(71.43)	9.00(64.29)	7.00(50.00)	12.00(85.71)	46.00(65.71)
f) Quote lower price than the actual price	10.00 (71.43)	12.00(85.71)	12.00(85.71)	13.00(92.86)	11.00(78.57)	58.00(82.86)
7. Market intervention Scheme (culled fruit)						
a) Price hasn't announced at the time	1.00 (7.14)	3.00(21.43)	3.00(21.43)	1.00(7.14)	2.00(14.29)	10.00(14.29)
b) Price is not paid on time	2.00 (14.29)	1.00(7.14)	2.00(14.29)	2.00(14.29)	4.00(28.57)	11.00(15.71)
c) Prices are low	8.00 (57.14)	12.00(85.71)	10.00(71.43)	11.00(78.57)	13.00(92.86)	54.00(77.14)
d) Do not give announced prices	1.00 (7.14)	1.00(7.14)	3.00(21.43)	2.00(14.29)	1.00(7.14)	8.00(11.43)

Note: Figures in parentheses indicate percentage of respective total

Market Intervention Scheme (Culled Fruit)

14.29 per cent of all the farms felt that the prices were not announced in time. Price not paid in time was a problem for nearly 15.71 per cent of the farmers. Merely 8 percent of them felt that the prices were low. However, 11.43 per cent of the farmers believed that the announced prices were not being given.

CONCLUSIONS

We admire that in the near future our farmers in concern, the apple growers of India shall reap materials & paradigm facilities on par with the international standard materials and facilities in order to cope up with the production and marketing problems and reap the benefits from a revised plan to overcome the lacunae in the process of marketing the apple fruit. The overriding objective is to rescue farmers from the discussed hurdles.

The majority of the farmers in the study is small by the extent of the apple farming in the study area. In order to overcome these issues, these small producers need an organization capable of mitigating their constraints. Studies

elsewhere have shown that small farmers are willing to take higher risk provided transaction costs associated with acquisition of resources is mitigated (Ballabh and Sharma, 1989).

REFERENCES

1. Ballabh V and BM Sharma (1989), "HYV Adoption: Production Adjustment Mechanisms in Flood Prone Areas of Uttar Pradesh: A synthesis." Research paper No. 5, Institute of Rural Management, Anand.
2. Horticulture development in Himachal Pradesh at a glance (18th Nov' 2015) (pdf.) Retrieved from www.hpagrisnet.gov.in/hpagris/horticulture/pdf/At-a-Glance%202015.pdf
3. Neha Dewan (21st Dec' 2015) Apple - A fruitful business - The Dollar Business (html.) Retrieved from <https://www.thedollarbusiness.com/magazine/a-fruitful-business-apple/5848>.

